APPENDIX B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE RESOLUTION NO. R9-2007-0044

A RESOLUTION AMENDING *THE WATER QUALITY CONTROL PLAN FOR THE SAN DIEGO BASIN (9)* TO INCORPORATE TOTAL MAXIMUM DAILY LOADS FOR INDICATOR BACTERIA PROJECT I - BEACHES AND CREEKS IN THE SAN DIEGO REGION

WHEREAS, The California Regional Water Quality Control Board, San Diego Region (hereinafter, San Diego Water Board), finds that:

1. **Basin Plan Amendment**: Total Maximum Daily Loads (TMDLs) and allocations for pollutants that exceed water quality objectives in waterbodies that do not meet water quality standards under the conditions set forth in section 303(d) of the Clean Water Act [33 U.S.C. 1250, *et seq*., at 1313(d)] ("Water Quality Limited Segments") should be incorporated into the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan) pursuant to Article 3, commencing with section 13240, of Chapter 4 of the Porter-Cologne Water Quality Control Act, as amended, codified in Division 7, commencing with section 13000, of the Water Code.

2. **Clean Water Act Section 303(d)**: As required by section 303(d) of the Clean Water Act (CWA), specific segments of the Pacific Ocean shoreline[1] and creeks in the San Diego Region, located in 12 coastal watersheds, were placed on the List of Water Quality Limited Segments because levels of total coliform, fecal coliform, and/or enterococci at those locations exceeded water quality objectives for water-contact recreation (REC-1) and shellfish harvesting (SHELL). (Measurements of total coliform, fecal coliform, and enterococci are relied on to indicate the presence of disease-causing pathogens.) The list of beach and creek segments at which water quality is impaired by bacterial pollution, including the extent of the impairments, and for which TMDLs have been calculated, are shown in Attachment A.

3. **Water Quality Impairments**: REC-1 and SHELL are particularly sensitive to, and subject to impairment by, pathogens when elevated densities of indicator bacteria exist in the water.[2] Persons who ingest water during recreational activities in waters containing indicator bacteria at densities in excess of water quality objectives for REC-1, and persons who consume filter-feeding shellfish from waters containing

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[1] The Pacific Ocean shoreline consists of a zone extending seaward from the shoreline a distance of 1,000 feet or to the 30-foot depth contour, whichever is further from the shoreline.

[2] Water quality objectives for indicator bacteria in waters with non-water-contact recreation (REC-2) are less stringent than the water quality objectives for REC-1, therefore, attainment of REC-1 objectives through the implementation of TMDLs will, *a fortiori,* provide the requisite water quality for REC-2.

indicator bacteria at densities in excess of water quality objectives for SHELL, are significantly more likely to incur infections or illness caused by pathogens in the water than when indicator bacteria occur at densities consistent with the applicable water quality objectives. REC-1 and SHELL are beneficial uses of the Pacific Ocean beaches where water quality is listed as impaired; REC-1 also exists in the creeks where water quality is listed as impaired.

4. **Necessity Standard** [Government Code section 11353(b)]: Amendment of the Basin Plan to establish and implement Total Maximum Daily Loads (TMDLs) for the waters of the beaches and creeks listed in Attachment A is necessary because the existing water quality at the beaches and creeks listed in Attachment A does not meet applicable water quality objectives for total coliform, fecal coliform, and/or enterococci bacteria. CWA section 303(d) requires the establishment and implementation of TMDLs under the water quality conditions that exist at these beaches and creeks. TMDLs for total coliform, fecal coliform, and/or enterococci bacteria are necessary to promote attainment of applicable water quality objectives and restoration of water quality needed to support the beneficial uses designated for the beaches and creeks.

5. **Water Quality Objectives**: Water quality objectives for bacteria in the waters of the Pacific Ocean shoreline, expressed as the most probable number of bacteria colonies per 100 mL of water sample (MPN/100 mL), are contained in the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan). The water quality objectives for bacteria in the inland surface waters are contained in the Basin Plan.

(a) The water quality objectives for indicator bacteria in waters of the Pacific Ocean shoreline designated as having REC-1 beneficial use include:

    i. Total coliform density shall not exceed 1,000 MPN/100 mL nor shall the geometric mean of total coliform density from five or more samples exceed 1,000 MPN/100mL, or 10,000 MPN/100mL in a single sample or 1,000 MPN/100mL in a single sample when the fecal coliform/total coliform ratio exceeds 0.1;

    ii. Fecal coliform density based on the geometric mean of least five samples shall not exceed 200 MPN/100mL nor 400 MPN/100mL in a single sample; and

    iii.Enterococci density based on the geometric mean of least five samples shall not exceed 35 MPN/100mL nor 104 MPN/100mL in a single sample.

(b) The water quality objectives for indicator bacteria in waters of the Pacific Ocean shoreline designated as having the SHELL beneficial use include:

    i. Median total coliform density shall not exceed 70 MPN/100mL and not more than 10 percent of the samples shall exceed 230 MPN/100mL where beneficial uses include SHELL.

(c) The water quality objectives for indicator bacteria in inland surface waters designated as having the REC-1 beneficial use include:

    i. Fecal Coliform: based on a minimum of not less than five samples for any 30-day period, bacteria density shall not exceed a log mean of 200 MPN/100 mL, and no more than 10 percent of the total samples during any 30-day period shall exceed 400 MPN/100 mL.

    ii. Enterococci: the geometric mean shall not exceed 33 MPN/100 mL and no samples shall exceed 61 MPN/100 mL.

6. **Numeric Targets**: Numeric Targets are established for the purposes of calculating TMDLs. Since numeric targets are equal to the water quality objectives for total coliform, fecal coliform, and enterococci bacteria cited in finding 5, attainment of TMDLs will ensure attainment of these water quality objectives.

7. **Sources of Bacteria**: Bacteria build up on the land surface as a result of various anthropogenic land uses and management practices (e.g., management of manure fertilizer in rural areas, and pet waste in urban areas) and natural processes (e.g., bird and wildlife feces). Bacteria are washed off the land surface by dry weather urban runoff and rainfall runoff and enter surface waters through pipes, outfalls, and conveyance channels from municipal wastewater treatment plants, industrial waste treatment facilities, or Municipal Separate Storm Sewer Systems (MS4s) in urban areas. In rural areas, bacteria are washed off the land surface through stormwater runoff directly to surface waters. These diffuse sources (agriculture, livestock, and horse ranch facilities) have multiple routes of entry into surface waters. In order to quantify bacteria loading from these various sources and transport mechanisms, 13 land-use types were identified in this TMDL analysis: Low Density Residential, High Density Residential, Commercial/Institutional, Industrial/Transportation, Military, Parks/Recreation, Open Recreation, Agriculture, Dairy/Intensive Livestock, Horse Ranches, Open Space, Water, and Transitional (Construction Activities). Since bacteria loading associated with these land use types is highly correlated with land-use practices, each land use type has a unique bacteria loading coefficient associated with it. Quantification of bacteria loading in all watersheds is necessary to calculate the load reductions required to meet the TMDLs.

8. **Water Quality Objective Violations**: Bacteria densities at the impaired beaches and creeks have frequently exceeded water quality objectives. For beaches, the highest number of exceedances of WQOs was in the vicinity of creeks and major stormwater outfalls.

9. **Relationship Between Bacteria and Pathogens:** Fecal indicator bacteria originate from the intestinal flora of warm-blooded animals, including humans, and their presence in surface water is used as an indicator of the possible presence of human pathogens (*i.e*., organisms that can cause illness in people exposed through

recreational water use and people who harvest and eat filter-feeding shellfish;
pathogens include protozoans, bacteria, viruses, and other disease-causing
organisms). Bacteria have been historically used as indicators of human pathogens
because the probability of disease is directly correlated with the density of indicator
bacteria in waters used for recreation and because the indicator bacteria are easier and
less costly to measure than the pathogens themselves. If TMDLs for indicator
bacteria are attained, then water quality objectives are met, and health risks associated
with pathogens are minimal.

10. **Total Maximum Daily Loads** [40 CFR 130.2(i)]: TMDLs for bacteria are equal to
the total assimilative or loading capacities of the waterbodies located in the 12
watersheds for total coliform, fecal coliform, and enterococci bacteria. The loading
capacities are defined as the maximum amount of fecal coliform, total coliform and
enterococci that the waterbody can receive and still attain water quality objectives
necessary for the protection of designated beneficial uses. Each TMDL must
accommodate all known sources of a pollutant, whether from natural background,
nonpoint sources, or point sources, and must include a margin of safety (MOS) to
preclude pollutant loading from exceeding the actual assimilative capacities of the
waterbodies. The TMDL calculations also account for seasonal variations and critical
conditions and were developed in a manner consistent with guidelines published by
USEPA.

11. **Allocations and Reductions**: Discharges of bacteria from all identified sources that
are susceptible to control or management must be reduced in order to keep total
bacterial loads as close to the TMDLs and actual assimilative capacities of the
impaired waters as possible. Discharges from controllable sources were identified as
originating from MS4s for urbanized sources, and agriculture, livestock, and horse
ranch facilities for non-urbanized sources. Controllable sources must be reduced by
an amount in proportion to the existing loads generated in each watershed, as
calculated using a computer model. TMDLs are reported on a watershed basis and
must be jointly achieved by all dischargers of bacteria located in the watersheds.
Although considered a controllable source, load reductions from the California
Department of Transportation (Caltrans) are not necessary because in all watersheds,
loads from Caltrans are a minor contributor to the total existing loads. Natural
sources of bacteria are considered uncontrollable and no load reductions are
necessary.

12. **Implementation Plan**: The report entitled *Total Maximum Daily Loads for Indicator
Bacteria, Project I – Beaches and Creeks in the San Diego Region*, (Technical
Report) dated [insert date] presents a summary of measures that, if adopted by the
San Diego Water Board, the State Water Resources Control Board (SWRCB), and
local governmental agencies, will promote attainment of the load reductions needed
to keep discharges of bacteria at or below the TMDLs calculated for these
waterbodies. Section 303 of the CWA and the federal NPDES regulations direct
USEPA and authorized states to impose requirements consistent with TMDLs for
point source discharges to "impaired" waterbodies.   When the San Diego Water

Board and SWRCB re-issue or revise National Pollutant Discharge Elimination System (NPDES) requirements for municipal and industrial storm water discharges, including discharges of "small MS4s," and take action implementing the State *Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, they will have to include requirements that will implement all TMDLs applicable to waters affected by the regulated discharges.

13. **Compliance Monitoring**: Monitoring including pollutant load reductions, changes in urban runoff and discharge water quality, and changes in receiving water quality will be necessary to assess effectiveness in achieving load and wasteload allocations and compliance with the water quality objectives for total coliform, fecal coliform, and enterococci.

14. **Compliance Schedule**: Full implementation of the TMDLs for indicator bacteria shall be completed within 20 years from the effective date of the Basin Plan amendment. The compliance schedule for implementing the load and wasteload reductions required under these TMDLs is structured in a phased manner, with 100 percent of interim reductions necessary for protection of the REC-1 beneficial use required within 10 years from the effective date of the Basin Plan amendment that establishes the TMDLs. Because dischargers accountable for attaining load reductions in multiple watersheds may have difficulty providing the same level of effort simultaneously in all watersheds, a scheme for prioritizing implementation of bacteria reduction strategies in waterbodies within watersheds was developed

15. **Scientific Peer Review**: The scientific basis for these TMDLs has undergone external peer review pursuant to Health and Safety Code section 57004. The San Diego Water Board has considered and responded to all comments submitted by the peer review panel, and has enhanced the Technical Report appropriately. No change to the fundamental approach to TMDL calculation was necessary as a result of this process.

16. **CEQA Requirements:** Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Regional Water Boards' basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.) requirements for preparing environmental documents [14 CCR 15251(g); 23 CCR 3782]. As such, the documents supporting the San Diego Water Board's proposed basin planning action contain the required environmental documentation under CEQA and serve as "substitute documents" [23 CCR 3777]. The substitute documents for this project include the environmental checklist, the detailed Technical Report, responses to comments submitted during the public participation phase in the development of the TMDLs, and this resolution. The project itself is the establishment of TMDLs for indicator bacteria at beaches and creeks where water quality has been listed as "impaired" by the SWRCB pursuant to section 303(d) of the CWA, as required by that section. While the San Diego Water Board has no discretion to not establish the TMDLs (the TMDLs are required by federal law), the

Board does exercise discretion in assigning waste load allocations and load allocations, determining the program of implementation, and setting various milestones in achieving the applicable water quality objectives at the affected beaches and creeks.

17. **Project Impacts:** The accompanying CEQA substitute documents satisfy the requirements of substitute documents for a Tier 1 environmental review under CEQA, pursuant to Public Resources Code section 21159 and CCR Title 14, section 15187. Nearly all of the compliance obligations anticipated to be necessary to implement the TMDLs for indicator bacteria will be undertaken by public agencies that will have their own obligations under CEQA for implementation projects that could have significant environmental impacts (*e.g*., installation and operation of structural best management practices). Project level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies pursuant to Public Resources Code section 21159.2.

If not properly mitigated at the project level, implementation and compliance measures undertaken could have significant adverse environmental impacts. The substitute documents for this TMDL, and in particular the environmental checklist and responses to comments, identify broad mitigation approaches that should be considered at the project level. The San Diego Water Board does not engage in speculation or conjecture regarding the projects that may be used to implement the TMDLs and only considers the reasonably foreseeable alternative methods of compliance, the reasonably foreseeable feasible environmental impacts of the these methods of compliance, and the reasonably foreseeable mitigation measures which would avoid or eliminate the identified impacts, all from a broad general perspective consistent with the uncertainty regarding how the TMDLs, ultimately, will be implemented. The lengthy implementation period allowed by the TMDLs will allow persons responsible for compliance with waste load allocations or load allocations to develop and pursue many compliance approaches and mitigation measures.

18. **Project Mitigation:** The proposed amendment to the Basin Plan to establish TMDLs for indicator bacteria in beaches and creeks could have a significant adverse effect on the environment. However, there are feasible alternatives, feasible mitigation measures, or both, that would substantially lessen any significant adverse impact. The public agencies responsible for implementation measures needed to comply with the TMDLs can and should incorporate such alternatives and mitigation into any projects or project approvals that they undertake for the impaired beaches and creeks. Possible alternatives and mitigation are described in the CEQA substitute documents, specifically the Technical Report and the environmental checklist. To the extent the alternatives, mitigation measures, or both, are not deemed feasible by those agencies, the necessity of implementing the TMDLs that is mandated by the federal Clean Water Act and removing the bacteria impairments on beaches and creeks in the San Diego Region (an action required to achieve the express, national policy of the Clean Water Act) outweigh the unavoidable adverse environmental effects identified in the substitute documents.

19. *Department of Fish and Game Filing Fee*: Considering the record as a whole, this Basin Plan amendment will result in no adverse effect, either individually or cumulatively, on wildlife resources.

20. **Economic Analysis**: The San Diego Water Board has considered the costs of the reasonably foreseeable methods of compliance with the load and wasteload allocations specified in these TMDLs. The most reasonably foreseeable methods of compliance involve implementation of structural and non-structural controls. Surface water monitoring to evaluate the effectiveness of these controls will be necessary.

21. **Stakeholder & Public Participation**: Interested persons and the public have had reasonable opportunity to participate in review of the proposed TMDLs. Efforts to solicit public review and comment included a public workshop and CEQA scoping meeting in March 2003, a public workshop in March 2004, eleven meetings with the Stakeholder Advisory Group, three public review and comment periods consisting of 62 days, 45 days, and 47 days, respectively, a public workshop on January 11, 2006, a public hearing on February 8, 2006, and a public hearing on April 25, 2007. Notices for all meetings were sent to interested parties including cities and counties with jurisdiction in watersheds draining to the bacteria impaired beaches and creeks. All of the written comments submitted to the San Diego Water Board during the review and comment periods have been considered in Appendix S to the Technical Report.

22. **Public Notice**: The San Diego Water Board has notified all known interested parties and the public of its intent to consider adoption of this Basin Plan amendment in accordance with Water Code section 13244.

NOW, THEREFORE, BE IT RESOLVED that

1. **Environmental Documents Certification**: The substitute environmental documents prepared pursuant to Public Resources Code section 21080.5 are hereby certified, and the Executive Officer is directed to file a Notice of Decision with the Resources Agency after State Water Board and OAL approval of the Basin Plan Amendment, in accordance with section 21080.5(d)(2)(E) of the Public Resources Code and the California Code of Regulations, title 23, section 3781.

2. **Amendment Adoption**: The San Diego Water Board hereby adopts the attached Basin Plan amendment as set forth in Attachment B hereto to establish TMDLs for indicator bacteria at impaired beaches and creeks in the San Diego Region.

3. **Technical Report Approval:** The San Diego Water Board hereby approves the Technical Report entitled *Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region*, dated [insert date].

4. **Certificate Of Fee Exemption**: The Executive Officer is authorized to sign a Certificate of Fee Exemption for a "*no*" impact finding and shall submit this

Certificate *in lieu* of payment of the California Department of Fish and Game filing fee.

5. **Agency Approvals**: The Executive Officer is directed to submit this Basin Plan amendment to the SWRCB in accordance with Water Code section 13245.

6. **Non-Substantive Corrections**: If, during the approval process for this amendment, the San Diego Water Board, the SWRCB, or the OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the San Diego Water Board of any such changes.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, San Diego Region, on [Insert Date].

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John H. Robertus
Executive Officer

ATTACHMENT A
TO RESOLUTION NO. R9-2007-0044

**Bacteria-Impaired Water Quality Limited Segments Included in
Project I - Beaches and Creeks in the San Diego Region**

Watershed	Type of Listing	Water Quality Limited Segment Name [a]	Drainage Area (mi²)[b]
Laguna/San Joaquin HSA 901.11 and 901.12	Shoreline	Pacific Ocean Shoreline, Laguna Beach HSA: Cameo Cove at Irvine Cove Dr. - Riviera Way; Heisler Park - North. Pacific Ocean Shoreline, San Joaquin Hills HSA: Main Laguna Beach; Laguna Beach at Ocean Avenue; Laguna Beach at Laguna Avenue; Laguna Beach at Cleo Street; Arch Cove at Bluebird Canyon Road; Laguna Beach at Dumond Drive.	13.94
Aliso Creek HSA 901.13	Shoreline and Creek	Pacific Ocean Shoreline: Laguna Beach at Lagunita Place / Blue Lagoon Place; Aliso Beach. Aliso Creek.	35.74
Dana Point HSA 901.14	Shoreline	Pacific Ocean Shoreline (Salt Creek): Aliso Beach at West Street; Aliso Beach at Table Rock Drive; 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Avenue); Salt Creek (large outlet); Salt Creek Beach at Salt Creek service road; Salt Creek Beach at Dana Strand Road.	8.89
San Juan Creek HSA 901.27	Shoreline and Creek	Pacific Ocean Shoreline San Juan Creek mouth Lower San Juan Creek.	177.18
San Clemente HA 901.30	Shoreline	Pacific Ocean Shoreline: Poche Beach (large outlet); Ole Hanson Beach Club Beach at Pico Drain; San Clemente City Beach at El Portal St. Stairs; San Clemente City Beach at Mariposa Street; San Clemente City Beach at Linda Lane; San Clemente City Beach at South Linda Lane; San Clemente City Beach at Lifeguard Headquarters; Under San Clemente Municipal Pier; San Clemente City Beach at Trafalgar Canyon (Trafalgar Lane); San Clemente State Beach at Riviera Beach; San Clemente State Beach at Cypress Shores.	18.78
San Luis Rey River	Shoreline	Pacific Ocean Shoreline: San Luis Rey River mouth.	560.42 (354.12)

Watershed	Type of Listing	Water Quality Limited Segment Name [a]	Drainage Area (mi²)[b]
HU 903.00			
San Marcos HA 904.50	Shoreline	Pacific Ocean Shoreline: Moonlight State Beach.	1.43
San Dieguito River HU 905.00	Shoreline	Pacific Ocean Shoreline: San Dieguito Lagoon Mouth.	346.22 (292.24)
Miramar Reservoir HA 906.10	Shoreline	Pacific Ocean Shoreline:[c] Torrey Pines State Beach at Del Mar (Anderson Canyon).	93.73
Scripps HA 906.30	Shoreline	Pacific Ocean Shoreline: La Jolla Shores Beach at El Paseo Grande[c]; La Jolla Shores Beach at Caminito Del Oro[c]; La Jolla Shores Beach at Vallecitos[c]; La Jolla Shores Beach at Ave de la Playa[c]; Casa Beach, Children's Pool; South Casa Beach at Coast Blvd.[c]; Whispering Sands Beach at Ravina Street[c]; Windansea Beach at Vista de la Playa[c]; Windansea Beach at Bonair Street[c]; Windansea Beach at Playa del Norte[c]; Windansea Beach at Palomar Avenue[c]; Tourmaline Surf Park[c]; Pacific Beach at Grand Ave.[c]	8.75
San Diego River HU 907.11	Shoreline and Creek	Pacific Ocean Shoreline: San Diego River Mouth (aka Dog Beach). Forester Creek. San Diego River (Lower).	436.48 (173.95)
Chollas Creek HSA (908.22)	Creek	Chollas Creek.	26.80

Note: HSA = hydrologic subarea; HA = hydrologic area; HU = hydrologic unit

[a] Listed as impaired for exceedances of fecal coliform, and/or total coliform, and/or enterococci.

[b] The drainage area associated with the dry weather TMDLs are in parenthesis. The drainage areas associated with the wet weather TMDLs are without parenthesis. Some areas impound runoff during dry periods because these watersheds are above large reservoirs and lakes.

[c] The SWRCB removed these beach segments from the 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments.

ATTACHMENT B
TO RESOLUTION NO. R9-2007-0044

AMENDMENT TO THE *WATER QUALITY CONTROL*
***PLAN FOR THE SAN DIEGO BASIN (9)* TO INCORPORATE**
TOTAL MAXIMUM DAILY LOADS FOR INDICATOR BACTERIA,
PROJECT I – BEACHES AND CREEKS IN THE SAN DIEGO REGION

This Basin Plan amendment establishes Total Maximum Daily Loads (TMDLs) and associated load and wasteload allocations for total coliform, fecal coliform, and enterococci bacteria in the beach and creek segments listed in Attachment A. This amendment includes a program to implement the TMDLs and monitor their effectiveness. Chapters 2, 3, and 4 of the Basin Plan are amended as follows:

Chapter 2, *Beneficial Uses*
Table 2-2. *Beneficial Uses of Inland Surface Waters*

Consecutively number and add the following footnote to Aliso Creek, San Juan Creek, Forrester Creek, San Diego River (lower), and Chollas Creek in Table 2-2:

> Aliso Creek, San Juan Creek, Forrester Creek, San Diego River (lower), and Chollas Creek are designated as water quality limited segments for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 3, *Water Quality Objectives*, Bacteria - Total and Fecal Coliform, and Bacteria - *E. Coli* and Enterococci, and Chapter 4, *Implementation*, *Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads, Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region*.

Renumber any footnotes in Table 2-2 displaced by this new footnote.

Table 2-3. *Beneficial Uses of Coastal Waters.*

Consecutively number and add the following footnote to Pacific Ocean in Table 2-3:

> The following Pacific Ocean shoreline segments are designated as water quality limited segments for indicator bacteria pursuant to Clean Water Act section 303(d): Cameo Cove at Irvine Cove Drive – Rivera Way, Heisler Park Beach – North, main Laguna Beach, Laguna Beach at Ocean Avenue, Laguna Beach at Cleo Street, Arch Cove at Bluebird Canyon Road, Laguna Beach at Dumond Drive, Laguna Beach at Lagunita Place / Blue Lagoon Place, Aliso Beach, Aliso Beach at West Street, Aliso Beach at Table Rock Drive, 1000 Steps Beach at Pacific Coast Highway and 9th Avenue, Salt Creek (large outlet), Salt Creek Beach at Salt Creek Service Road, Salt Creek Beach at Dana Strand Road, Poche Beach (large outlet), Ole Hanson Beach Club Beach at Pico Drain, San Clemente City Beach at El Portal Street Stairs, San Clemente City Beach at Mariposa Street, San Clemente City Beach at Linda Lane, San Clemente City Beach at South Linda Lane, San Clemente City Beach at

Lifeguard Headquarters, Under San Clemente Municipal Pier, San Clemente City Beach at Trafalgar Canyon (Trafalgar Lane), San Clemente City Beach at Riviera Beach, San Clemente City Beach at Cypress Shores, Moonlight State Beach, San Dieguito Lagoon Beach, Torrey Pines State Beach at Del Mar (Anderson Canyon), La Jolla Beach at El Paseo Grande, La Jolla Shores Beach art Caminito Del Oro, La Jolla Shores Beach at Vallecitos, La Jolla Shores Beach at Ave De La Playa, Casa Beach at Childrens Pool, South Casa Beach at Coast. Blvd., Whispering Sands Beach at Ravina Street, Windandsea Beach at Vista De La Playa, Windandsea Beach at Bonair Street, Windandsea Beach at Playa Del Norte, Windandsea Beach at Palomar Avenue, Tourmaline Surf Park, Pacific Beach at Grand Avenue. Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads, Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*

Consecutively number and add the following footnote to Mouth of San Juan Creek in Table 2-3:

The mouth of San Juan Creek is designated as a water quality limited segment for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region*

Consecutively number and add the following footnote to Mouth of San Luis Rey River in Table 2-3:

> The mouth of San Luis Rey River is designated as a water quality limited segment for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*

Consecutively number and add the following footnote to Mouth of San Diego River in Table 2-3:

> The mouth of San Diego River is designated as a water quality limited segment for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads, Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*

Renumber any footnotes in Table 2-3 displaced by these new footnotes.

Chapter 3, Water Quality Objectives

***Ocean Waters; Ocean Plan and Thermal Plan*:**

Add a second paragraph as follows:

> The following Pacific Ocean shoreline segments are designated as water quality limited segments for indicator bacteria pursuant to Clean Water Act section 303(d): Cameo Cove at Irvine Cove Drive – Rivera Way, Heisler Park Beach – North, main Laguna Beach, Laguna Beach at Ocean Avenue, Laguna Beach at Cleo Street, Arch Cove at Bluebird Canyon Road, Laguna Beach at Dumond Drive, Laguna Beach at Lagunita Place / Blue Lagoon Place, Aliso Beach, Aliso Beach at West Street, Aliso Beach at Table Rock Drive, 1000 Steps Beach at Pacific Coast Highway and 9th Avenue, Salt Creek (large outlet), Salt Creek Beach at Salt Creek Service Road, Salt Creek Beach at Dana Strand Road, Poche Beach (large outlet), Ole Hanson Beach Club Beach at Pico Drain, San Clemente City Beach at El Portal Street Stairs, San Clemente City Beach at Mariposa Street, San Clemente City Beach at Linda Lane, San Clemente City Beach at South Linda Lane, San Clemente City Beach at Lifeguard Headquarters, Under San Clemente Municipal Pier, San Clemente City Beach at Trafalgar Canyon (Trafalgar Lane), San Clemente City Beach at Riviera Beach, San Clemente City Beach at Cypress Shores, Moonlight State Beach, San Dieguito Lagoon Beach, Torrey Pines State Beach at Del Mar (Anderson Canyon), La Jolla Beach at El Paseo Grande, La Jolla Shores Beach art Caminito Del Oro, La Jolla Shores Beach at Vallecitos, La Jolla Shores Beach at Ave De La Playa, Casa Beach at Childrens Pool, South Casa Beach at Coast. Blvd., Whispering Sands Beach at Ravina Street, Windandsea Beach at Vista De La Playa, Windandsea Beach at Bonair Street, Windandsea Beach at Playa Del Norte, Windandsea Beach at Palomar Avenue, Tourmaline Surf Park, Pacific Beach at Grand Avenue. Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 2, Table 2-3, *Beneficial uses of Coastal Waters, Footnotes [insert footnote numbers]*, and Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads, Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*

***Inland Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons, and Ground Waters; Bacteria – Total and Fecal Coliform*:**

Add a second paragraph as follows:

> Aliso Creek, San Juan Creek, Forrester Creek, San Diego River (lower), and Chollas Creek are designated as water quality limited segments for indicator bacteria pursuant to Clean Water Act section 303(d). Total Maximum Daily Loads have been adopted to address these impairments. See Chapter 2, Table 2-2, *Beneficial Uses of Inland Surface Waters, Footnote [insert footnote number]* and Chapter 4, *Implementation, Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads, Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*

Chapter 4, *Implementation*

Amend the Table of Contents of Chapter 4 to include the subsection added below.

Consecutively number footnotes appropriately.

Add the following subsection to the *Clean Water Act Section 303(d) Requirements for Impaired Waterbodies, Total Maximum Daily Loads* section in Chapter 4:

> *Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region.*
>
> On [Insert date], the San Diego Water Board adopted Resolution No. R9-2006-0001, *A Resolution Amending the Water Quality Control Plan for the San Diego Region (9) to Incorporate Total Maximum Daily Loads for Indicator Bacteria, Project I – Beaches and Creeks in the San Diego Region*. The TMDL Basin Plan Amendment was subsequently approved by the State Water Resources Control Board (SWRCB)on [Insert date], the Office of Administrative Law on [Insert date], and the USEPA on [Insert date].
>
> **Problem Statement**
>
> Bacteria densities in the Pacific Ocean at various beach segments violate water quality objectives (WQOs) for indicator bacteria. Bacteria densities in ocean water at these beaches unreasonably impair and threaten to impair the water quality needed to support designated beneficial uses of contact recreation (REC-1) and shellfish harvesting (SHELL)[1].
>
> Bacteria densities in the waters of Aliso, San Juan, and Forrester Creeks, and the (lower) San Diego River violate WQOs for indicator bacteria. Bacteria densities in these creeks unreasonably impair and threaten to impair the water quality needed to support REC-1.
>
> The federal Clean Water Act requires the establishment of Total Maximum Daily Loads (TMDLs) for pollutants that exceed water quality objectives needed to support designated beneficial uses, *i.e*., that cause or contribute to violation of state "water quality standards."
>
> **Numeric Target**
>
> When calculating TMDLs, numeric targets are established to meet WQOs and subsequently ensure the protection of beneficial uses. TMDLs were calculated for each impaired waterbody, for each indicator bacteria, for wet and dry weather, and for interim and final phases. The numeric targets used in the TMDL calculations were equal to the WQOs for bacteria for either REC-1 or SHELL beneficial uses, depending on the indicator (the WQOs for SHELL use are for total coliform, only).

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[1] Water quality objectives for indicator bacteria in waters with non-water-contact recreation (REC-2) are less stringent than the water quality objectives for REC-1, therefore, attainment of REC-1 objectives through the implementation of TMDLs will, *a fortiori,* provide the requisite water quality for REC-2.

Different dry weather and wet weather numeric targets were used because the bacteria transport mechanisms to receiving waters are different under wet and dry weather conditions. Single sample maximum WQOs were used as wet weather numeric targets while geometric mean WQOs were used as numeric targets for dry weather periods. For impaired beaches, the numeric targets were equal to the total coliform, fecal coliform and enterococci WQOs for REC-1 in all cases except for the final numeric targets for total coliform. In this case the SHELL WQO was used because it is more stringent than the REC-1 WQOs for total coliform. Wet weather numeric targets were equal to the single sample maximum WQOs, while dry weather targets were equal to the geometric mean WQOs.

Numeric targets used to calculate TMDLs for beaches were also used to calculate TMDLs for impaired creeks (except where WQOs for creeks are more stringent). Even though beaches and creeks are separate waterbodies with slightly different WQOs, all creeks included in this project eventually discharge to beaches, and therefore beneficial uses applicable to beaches must be protected at creek mouths.

Another difference between the wet weather and dry weather TMDL calculations, is that the wet weather targets (during the interim period, only) are implemented by allowing a 22 percent exceedance frequency of the single sample WQOs for REC-1. The purpose of the exceedance frequency is to account for the natural, and largely uncontrollable sources of bacteria (e.g., bird and wildlife feces) in the wet weather loads generated in the watersheds and at the beaches, which can, by themselves, cause exceedances of WQOs. Twenty-two percent is the frequency of exceedance of the single sample maximum WQOs measured in a reference system in Los Angeles County (Leo Carillo Beach/Arroyo Sequit Watershed). A reference system is a beach and upstream watershed that are minimally impacted by anthropogenic activities. The reference system approach also incorporates antidegradation principles in that, if water quality is better than that of the reference system in a particular location, no degradation of existing bacteriological water quality is permitted.

The numeric targets for the beach areas that are downstream of San Juan Creek, Aliso Creek and the San Diego River are equal to the numeric targets for the creeks. Specifically, the WQOs for enterococci are more stringent for creeks than for beaches. Since beaches are downstream of creeks, and numeric targets are equal to WQOs, TMDLs for beaches are calculated using the more stringent WQOs applicable to creeks. Enterococci numeric targets are based on the "designated beach" use category described in Chapter 3.

In some cases, the "designated beach" category may be over-protective of water quality because of the infrequent recreational use in the impaired creeks. The recreational usage frequency in these creeks may correspond to the "moderately to lightly used areas" category. If information is obtained to justify the "moderately to lightly used area" usage frequency, TMDLs using the corresponding to this numeric target will be used instead.

The numeric targets for the scenarios described above are listed in the following tables.

[Insert table number]. Interim and Final Wet Weather Numeric Targets

Indicator Bacteria	Interim Targets		Final Targets	
	Numeric Target (MPN/100mL)	Allowable Exceedance Frequency [a]	Numeric Target [d] (MPN/100mL)	Allowable Exceedance Frequency [b]
Fecal coliform	400 [c]	22%	400 [c]	Not applicable
Total coliform	10,000 [d]	22%	230 [e]	Not applicable
Enterococci	104 [f] / 61 [g]	22%	104 [f] / 61 [g]	Not applicable

[a] Exceedance frequency based on reference system in the Los Angeles Region.

[b] Not applicable because there is no authorization for a reference system approach in the Basin Plan.

[c] Fecal coliform single sample maximum WQO for REC-1 use at creeks and at beaches.

[d] Total coliform single sample maximum WQO for REC-1 use at creeks and at beaches.

[e] Total coliform single sample maximum WQO for SHELL use at beaches.

[f] Enterococci single sample maximum WQO for REC-1 use for "moderately or lightly used" and at "designated beach" frequency of use.

[g] Enterococci single sample maximum WQO for REC-1 use at impaired creeks and downstream beaches ("designated beach" frequency of use; applicable to San Juan Creek and downstream beach, Aliso Creek and downstream beach, San Diego River and downstream beach, Chollas Creek, and Forrester Creek).

[Insert table number]. Final Dry Weather Numeric Targets

Indicator Bacteria	Interim Targets (MPN/100mL)	Final Targets (MPN/100mL)
Fecal coliform	Not applicable	200 [a]
Total coliform	1,000 [b]	70 [c]
Enterococci	Not applicable	35 [d] / 33 [e]

[a] Fecal coliform 30-day geometric mean WQO for REC-1 use at creeks and beaches.

[b] Total coliform 30-day geometric mean WQO for REC-1 at beaches.

[c] Total coliform 30-day geometric mean WQO for SHELL at beaches.

[d] Enterococci 30-day geometric mean WQO for REC-1 at beaches.

[e] Enterococci 30-day geometric mean WQO for REC-1 use at impaired creeks and downstream beaches (applicable to San Juan Creek and downstream beach, Aliso Creek and downstream beach, San Diego River and downstream beach, Chollas Creek, and Forrester Creek).

Source Analysis

Bacteria build up on the land surface as a result of various anthropogenic land uses and management practices (e.g., management of manure fertilizer in rural areas, and pet waste in urban areas) and natural processes (e.g., bird and wildlife feces). Bacteria are washed off the land surface by dry weather urban runoff and rainfall runoff and enter surface waters through pipes, outfalls, and conveyance channels from municipal wastewater treatment plants, industrial waste treatment facilities, or Municipal Separate Storm Sewer Systems (MS4s) in urban areas. Discharges of bacteria from pipes and outfalls constitute point sources. In rural areas, bacteria are washed off the land surface through stormwater runoff directly to surface waters. These nonpoint sources are diffuse sources that have multiple routes of entry into surface waters. Nonpoint sources consist of controllable and uncontrollable sources. Controllable sources include those generated in agriculture, livestock, and horse ranch facilities.[2] Uncontrollable nonpoint source loads come from mostly natural sources (e.g. bird and wildlife feces). In order to quantify bacteria loading from these various sources and transport mechanisms, 13 land-use types were identified in this TMDL analysis: Low Density Residential, High Density Residential, Commercial/Institutional, Industrial/Transportation, Military, Parks/Recreation, Open Recreation, Agriculture, Dairy/Intensive Livestock, Horse Ranches, Open Space, Water, and Transitional (Construction Activities). Since bacteria loading associated with these land use types is highly correlated with land-use practices, each land use type has a unique bacteria loading coefficient associated with it.

Total Maximum Daily Loads and Allocations

The TMDLs are equal to the assimilative or loading capacity of each creek or beach segment for each pollutant. TMDLs for each type of indicator bacteria were developed for each impaired waterbody. TMDLs are defined as the maximum amount of a pollutant the waterbody can receive and still attain water quality objectives and protection of designated beneficial uses. Once calculated, a TMDL is set equal to the sum of all individual Waste Load Allocations (WLAs) for point sources and natural background levels. The TMDL includes a margin of safety (MOS) that takes into account any uncertainties in the TMDL calculation. In this TMDL, the margin of safety is included via conservative estimates throughout the TMDL calculations and not as a separate, additional factor. Separate TMDLs were calculated for wet weather and dry weather conditions to account for seasonal variations, and because the transport mechanism, flow, and bacteria loads are different between dry and wet weather conditions. The year 1993 was selected as the critical wet year for assessment of extreme wet weather loading conditions. This year was the wettest year of the 12 years analyzed (1990 through 2002), and corresponds to the 92nd percentile of annual rainfalls measured at multiple rainfall gages in the San Diego Region.

Calibrated models were used to simulate flow and bacteria densities. This information was used to calculate the existing bacteria loads to, and TMDLs for, each impaired segment.

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[2] Animal facilities may be considered point sources if the discharge is from a Concentrated Animal Feeding Operation (CAFO) and is conveyed to surface waters.

Existing loads were compared to the TMDLs to calculate the necessary watershed-wide load reductions needed to achieve the TMDLs in the waterbodies. The TMDLs were allocated among point sources (WLAs) and nonpoint sources (LAs) in each watershed by assigning the loads generated by urban land use areas to point sources, loads generated by rural land use areas to controllable nonpoint sources, and loads generated on undeveloped lands to uncontrollable nonpoint sources. The portions of the wet weather TMDLs assigned to WLAs and LAs were calculated based on the percent of the TMDL load generated by the urban, rural, and undeveloped land uses in each watershed as determined by the models. The dry weather TMDLs were assigned entirely to WLAs because the runoff that transports bacteria loads to surface waters during dry weather occurs only in urban areas. The TMDLs, watershed-wide load reductions, LAs and WLAs are shown below in [Insert table numbers].

Margin of Safety

The TMDLs include an implicit margin of safety (MOS). The MOS is included via conservative estimates and assumptions (meaning worst-case scenarios were assumed in terms of existing bacteria loading) throughout the calculations and not as a separate, additional factor.

[Insert table number]. *Interim Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101	52,676	49,474	2,765	52.2%	545	0.0%	16	46,318
	103								
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104	652,339	615,160	34,405	52.2%	6,787	0.0%	196	573,602
	105								
	106								
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201	1,752,095	1,579,074	477,264	26.6%	26,457	0.0%	268	1,075,085
	202								
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301	403,911	377,313	152,456	14.8%	0	0.0%	0	224,857
	302								
	304								
	305								
	306								
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	15,304,790	14,714,833	1,155,725	12.9%	2,856,458	12.8%	1,541	10,701,109

[Insert table number]. *Interim Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	1,441,719	1,378,930	192,639	24.6%	433	0.0%	333	1,185,526
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502								
San Clemente City Beach at Linda Lane	503								
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504								
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach	505								
San Clemente State Beach at Cypress Shores	506								
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	33,120,012	32,445,470	916,123	3.3%	20,041,752	3.1%	1,575	11,486,020
San Marcos HA (904.50) at Moonlight State Beach	1101	20,886	17,224	6,558	19.1%	9,073	19.0%	8	1,585
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 / 1302	21,286,909	21,106,683	798,010	1.6%	11,703,008	1.4%	1,496	8,604,169
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	10,392	10,256	6,704	2.0%	0	0.0%	0	3,552

[Insert table number]. *Interim Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
Scripps HA (906.30) La Jolla Shores Beach at Paseo Grande	1501								

La Jolla Shores Beach at Caminito Del Oro
  La Jolla Shores Beach at Vallecitos
  La Jolla Shores Beach at Ave de la Playa
	1503								

at Casa Beach (aka Children's Pool)
  South Casa Beach at Coast Blvd.
  Whispering Sands Beach at Ravina St.
  Windansea Beach at Vista de la Playa
	1505	204,057	176,906	101,262	21.1%	0	0.0%	0	75,644

Windansea Beach at Bonair St.
  Windansea Beach at Playa del Norte
  Windansea Beach at Palomar Ave.
  at Tourmaline Surf Park
  Pacific Beach at Grand Ave.
	1507								

San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	4,932,380	4,681,150	221,233	53.3%	414,813	0.0%	1,045	4,044,058
Santee HSA (907.12) Forrester Creek	1801	4,932,380	4,681,150	221,233	53.3%	414,813	0.0%	1,045	4,044,058
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	4,932,380	4,681,150	221,233	53.3%	414,813	0.0%	1,045	4,044,058
Chollas HSA (908.22) Chollas Creek	1901	603,863	520,440	252,514	25.0%	0	0.0%	898	267,028

[Insert table number]. *Final Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101 / 103	52,676	1,119	0	100%	0	100%	0	46,318
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104 / 105 / 106	652,339	14,923	0	100%	0	100%	0	573,602
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201 / 202	1,752,095	84,562	0	100%	0	100%	0	1,075,085
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301 / 302 / 304 / 305 / 306	403,911	14,894	0	100%	0	100%	0	224,857
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	15,304,790	358,410	0	100%	0	100%	0	10,701,109

[Insert table number]. *Final Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	1,441,719	36,481	0	100%	0	100%	0	1,185,526
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502								
San Clemente City Beach at Linda Lane	503								
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504								
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.)	505								
San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	506								
San Luis Rey HU (903.00) At San Luis Rey River Mouth	701	33,120,012	641,823	0	100%	0	100%	0	11,486,020
San Marcos HA (904.50) At Moonlight State Beach	1101	20,886	1,559	0	100%	0	100%	0	1,585
San Dieguito HU (905.00) At San Dieguito Lagoon Mouth	1301 1302	21,286,909	431,004	0	100%	0	100%	0	8,604,169
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	10,392	312	0	100%	0	100%	0	3,552

[Insert table number]. *Final Wet Weather TMDLs for Fecal Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	

Scripps HA (906.30)
  La Jolla Shores Beach at El Paseo Grande
  La Jolla Shores Beach at Caminito Del Oro
	1501	204,057	10,329	0	100%	0	100%	0	75,644

La Jolla Shores Beach at Vallecitos
  La Jolla Shores Beach at Ave de la Playa
  at Casa Beach (aka Children's Pool)
  South Casa Beach at Coast Blvd.
	1503								

Whispering Sands Beach at Ravina St. Windansea Beach at Vista de la Playa	1505								

Windansea Beach at Bonair St.
  Windansea Beach at Playa del Norte
  Windansea Beach at Palomar Ave.
  at Tourmaline Surf Park
  Pacific Beach at Grand Ave.
	1507								

San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	4,932,380	311,132	0	100%	0	100%	0	4,044,058
Santee HSA (907.12) Forrester Creek	1801	4,932,380	311,132	0	100%	0	100%	0	4,044,058
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	4,932,380	311,132	0	100%	0	100%	0	4,044,058
Chollas HSA (908.22) Chollas Creek	1901	603,863	55,516	0	100%	0	100%	0	267,028

[Insert table number]. *Interim/Final Dry Weather TMDLs for Fecal Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) 　Cameo Cove at Irvine Cove Dr. - Riviera Way 　at Heisler Park – North	101 103	511	16	16	96.9%
Laguna Beach HSA (901.12) 　at Main Laguna Beach 　Laguna Beach at Ocean Avenue 　Laguna Beach at Laguna Ave. 　Laguna Beach at Cleo Street 　Arch Cove at Bluebird Canyon Rd. 　Laguna Beach at Dumond Drive	104 105 106	2,230	211	211	90.5%
Aliso HSA (901.13) 　Laguna Beach at Lagunita Place / Blue Lagoon Place 　at Aliso Beach 　Aliso Creek	201 202	5,470	242	242	95.6%
Dana Point HSA (901.14) 　Aliso Beach at West Street 　Aliso Beach at Table Rock Drive 　1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) 　at Salt Creek (large outlet) 　Salt Creek Beach at Salt Creek service road 　Salt Creek Beach at Dana Strand Road	301 302 304 305 306	1,851	92	92	95.0%
Lower San Juan HSA (901.27) 　San Juan Creek	401	6,455	1,665	1,665	74.2%

[Insert table number]. *Interim/Final Dry Weather TMDLs for Fecal Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	3,327	192	192	94.2%
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502				
San Clemente City Beach at Linda Lane	503				
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504				
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.)	505				
San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	506				
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	1,737	1,058	1,058	39.1%
San Marcos HA (904.50) at Moonlight State Beach	1101	149	26	26	82.6%
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 1302	1,631	1,293	1,293	20.7%
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	205	7	7	96.4%

[Insert table number]. *Interim/Final Dry Weather TMDLs for Fecal Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
Scripps HA (906.30) La Jolla Shores Beach at El Paseo Grande La Jolla Shores Beach at Caminito Del Oro	1501	3,320	119	119	96.4%
La Jolla Shores Beach at Vallecitos La Jolla Shores Beach at Ave de la Playa at Casa Beach (aka Children's Pool) South Casa Beach at Coast Blvd. Whispering Sands Beach at Ravina St.	1503				
Windansea Beach at Vista de la Playa Windansea Beach at Bonair St. Windansea Beach at Playa del Norte	1505				
Windansea Beach at Palomar Ave. at Tourmaline Surf Park Pacific Beach at Grand Ave.	1507				
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	4,928	1,506	1,506	69.4%
Santee HSA (907.12) Forrester Creek	1801	4,928	1,506	1,506	69.4%
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	4,928	1,506	1,506	69.4%
Chollas HSA (908.22) Chollas Creek	1901	5,068	398	398	92.1%

[Insert table number]. *Interim Wet Weather TMDLs for Total Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101 103	628,669	567,611	67,154	47.0%	3,884	0.0%	564	497,466
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104 105 106	7,593,233	6,878,039	814,129	47.0%	47,092	0.0%	6,836	6,008,525
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201 202	23,210,774	20,190,798	8,924,810	25.4%	178,723	0.0%	11,084	11,076,181
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301 302 304 305 306	6,546,962	6,031,472	3,404,176	13.2%	0	0.0%	655	2,626,641
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	130,258,863	122,879,198	16,079,932	19.5%	14,959,851	19.2%	59,021	91,780,395

[Insert table number]. *Interim Wet Weather TMDLs for Total Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatshed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	16,236,540	15,147,590	3,479,513	24.0%	1,624	0.0%	13,489	11,652,965
San Clemente City Beach at El Portal St. Stairs	502								
San Clemente City Beach at Mariposa St. San Clemente City Beach at Linda Lane	503								
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504								
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach	505								
San Clemente State Beach at Cypress Shores	506								
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	231,598,677	224,189,156	14,395,880	6.0%	110,776,086	5.6%	55,075	98,962,115
San Marcos HA (904.50) at Moonlight State Beach	1101	515,278	425,083	298,420	18.6%	99,848	18.4%	536	26,279
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 / 1302	163,541,132	159,978,672	16,676,828	4.3%	66,718,625	4.1%	45,968	76,537,250
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	212,986	210,182	171,430	1.6%	0	0.0%	10	38,742

[Insert table number]. *Interim Wet Weather TMDLs for Total Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	

Scripps HA (906.30)
  La Jolla Shores Beach at El Paseo Grande
  La Jolla Shores Beach at Caminito Del Oro
	1501								

La Jolla Shores Beach at Vallecitos
  La Jolla Shores Beach at Ave de la Playa
  at Casa Beach (aka Children's Pool)
	1503								

South Casa Beach at Coast Blvd. Whispering Sands Beach at Ravina St. Windansea Beach at Vista de la Playa	5,029,518	4,356,972	3,448,138	16.3%	0	0.0%	0	908,834		
Windansea Beach at Bonair St. Windansea Beach at Playa del Norte Windansea Beach at Palomar Ave. at Tourmaline Surf Park Pacific Beach at Grand Ave.	1507								
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	72,757,569	66,114,283	10,801,645	38.2%	3,499,639	0.0%	53,264	51,759,735
Santee HSA (907.12) Forrester Creek	1801	72,757,569	66,114,283	10,801,645	38.2%	3,499,639	0.0%	53,264	51,759,735
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	72,757,569	66,114,283	10,801,645	38.2%	3,499,639	0.0%	53,264	51,759,735
Chollas HSA (908.22) Chollas Creek	1901	15,390,608	13,247,626	9,880,562	18.1%	0	0.0%	45,770	3,321,293

[Insert table number]. *Final Wet Weather TMDLs for Total Coliform Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	

San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12)
  Cameo Cove at Irvine Cove Dr. - Riviera Way
  at Heisler Park – North
	101	628,669	644	0	100%	0	100%	0	497,466

	103								

Laguna Beach HSA (901.12)
  at Main Laguna Beach
  Laguna Beach at Ocean Avenue
  Laguna Beach at Laguna Ave.
  Laguna Beach at Cleo Street
  Arch Cove at Bluebird Canyon Rd.
  Laguna Beach at Dumond Drive
	104	7,593,233	8,594	0	100%	0	100%	0	6,008,525

	105								
	106								

Aliso HSA (901.13)
  Laguna Beach at Lagunita Place / Blue Lagoon Place
  at Aliso Beach
  Aliso Creek
	201	23,210,774	57,629	0	100%	0	100%	0	11,076,181

	202								

Dana Point HSA (901.14)
  Aliso Beach at West Street
  Aliso Beach at Table Rock Drive
  1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave)
  at Salt Creek (large outlet)
  Salt Creek Beach at Salt Creek service road
  Salt Creek Beach at Dana Strand Road
	301	6,546,962	8,387	0	100%	0	100%	0	2,626,641

	302								
	304								
	305								
	306								
Lower San Juan HSA (901.27) San Juan Creek	401	130,258,863	8,947,114	0	100%	0	100%	0	91,780,395

[Insert table number]. Final Wet Weather TMDLs for Total Coliform Expressed as an Annual Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St. San Clemente City Beach at Linda Lane San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	501 502 503 504 505 506	16,236,540	20,998	0	100%	0	100%	0	11,652,965
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	231,598,677	440,347	0	100%	0	100%	0	98,962,115
San Marcos HA (904.50) at Moonlight State Beach	1101	515,278	899	0	100%	0	100%	0	26,279
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 1302	163,541,132	461,886	0	100%	0	100%	0	76,537,250
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	212,986	182	0	100%	0	100%	0	38,742

[Insert table number]. Final Wet Weather TMDLs for Total Coliform Expressed as an Annual Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	

Scripps HA (906.30)
  La Jolla Shores Beach at El Paseo Grande
  La Jolla Shores Beach at Caminito Del Oro
	1501	5,029,518	5,940	0	100%	0	100%	0	908,834

La Jolla Shores Beach at Vallecitos
  La Jolla Shores Beach at Ave de la Playa
  at Casa Beach, Children's Pool
  South Casa Beach at Coast Blvd.
	1503								

Whispering Sands Beach at Ravina St.
  Windansea Beach at Vista de la Playa
  Windansea Beach at Bonair St.
  Windansea Beach at Playa del Norte
	1505								

Windansea Beach at Palomar Ave.
  at Tourmaline Surf Park
  Pacific Beach at Grand Ave.
	1507								

San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	72,757,569	189,650	0	100%	0	100%	0	51,759,735
Santee HSA (907.12) Forrester Creek	1801	72,757,569	189,650	0	100%	0	100%	0	51,759,735
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	72,757,569	189,650	0	100%	0	100%	0	51,759,735
Chollas HSA (908.22) Chollas Creek	1901	15,390,608	1,386,037	0	100%	0	100%	0	3,321,293

[Insert table number]. *Interim Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Waste-load Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			

San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12)
  Cameo Cove at Irvine Cove Dr. - Riviera Way
  at Heisler Park – North
	101	2,571	78	78	97.0%

	103				

Laguna Beach HSA (901.12)
  at Main Laguna Beach
  Laguna Beach at Ocean Avenue
  Laguna Beach at Laguna Ave.
  Laguna Beach at Cleo Street
  Arch Cove at Bluebird Canyon Rd.
  Laguna Beach at Dumond Drive
	104	11,220	1,056	1,056	90.6%

	105				
	106				

Aliso HSA (901.13)
  Laguna Beach at Lagunita Place / Blue Lagoon Place
  at Aliso Beach
  Aliso Creek
	201	26,639	1,208	1,208	95.9%

	202				

Dana Point HSA (901.14)
  Aliso Beach at West Street
  Aliso Beach at Table Rock Drive
  1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave)
  at Salt Creek (large outlet)
  Salt Creek Beach at Salt Creek service road
  Salt Creek Beach at Dana Strand Road
	301	9,315	462	462	95.0%

	302				
	304				
	305				
	306				

Lower San Juan HSA (901.27)
  San Juan Creek
  at San Juan Creek mouth
  at San Juan Creek beach
	401	30,846	8,342	8,342	73.0%

[Insert table number]. *Interim Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	16,743	958	958	94.3%
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502				
San Clemente City Beach at Linda Lane	503				
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504				
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach	505				
San Clemente State Beach at Cypress Shores	506				
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	8,549	5,289	5,289	38.1%
San Marcos HA (904.50) at Moonlight State Beach	1101	751	129	129	82.7%
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301	7,555	6,468	6,468	14.4%
	1302				
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	1,030	36	36	96.5%

[Insert table number]. Interim Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			

Scripps HA (906.30)
    La Jolla Shores Beach at El Paseo Grande
    La Jolla Shores Beach at Caminito Del Oro
	1501	16,707	594	594	96.4%

La Jolla Shores Beach at Vallecitos
    La Jolla Shores Beach at Ave de la Playa
    at Casa Beach (aka Children's Pool)
    South Casa Beach at Coast Blvd.
	1503				

Whispering Sands Beach at Ravina St.
    Windansea Beach at Vista de la Playa
    Windansea Beach at Bonair St.
    Windansea Beach at Playa del Norte
	1505				

Windansea Beach at Palomar Ave.
    at Tourmaline Surf Park
    Pacific Beach at Grand Ave.
	1507				

San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	28,988	7,529	7,529	74.0%
Santee HSA (907.12) Forrester Creek	1801	28,988	7,529	7,529	74.0%
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	28,988	7,529	7,529	74.0%
Chollas HSA (908.22) Chollas Creek	1901	25,080	1,991	1,991	92.1%

[Insert table number]. *Final Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Waste-load Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101	2,571	5	5	99.8%
	103				
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104	11,220	74	74	99.3%
	105				
	106				
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201	26,639	85	85	99.7
	202				
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301	9,315	32	32	99.7%
	302				
	304				
	305				
	306				
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	30,846	8,324	8,324	73.0%

[Insert table number]. *Final Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St. San Clemente City Beach at Linda Lane San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	501 502 503 504 505 506	16,743	67	67	99.6%
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	8,549	370	370	95.7%
San Marcos HA (904.50) at Moonlight State Beach	1101	751	9	9	98.8%
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 1302	7,555	453	453	94.0%
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	1,030	3	3	99.8%

[Insert table number]. *Final Dry Weather TMDLs for Total Coliform Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			

Scripps HA (906.30)
  La Jolla Shores Beach at El Paseo Grande
  La Jolla Shores Beach at Caminito Del Oro
	1501	16,707	42	42	99.8

La Jolla Shores Beach at Vallecitos
  La Jolla Shores Beach at Ave de la Playa
  at Casa Beach (aka Children's Pool)
	1503				

South Casa Beach at Coast Blvd.
  Whispering Sands Beach at Ravina St.
  Windansea Beach at Vista de la Playa
	1505				

Windansea Beach at Bonair St.
  Windansea Beach at Playa del Norte
  Windansea Beach at Palomar Ave.
  at Tourmaline Surf Park
Pacific Beach at Grand Ave.
	1507				

San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	28,988	527	527	98.2%
Santee HSA (907.12) Forrester Creek	1801	28,988	527	527	98.2%
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	28,988	527	527	98.2%
Chollas HSA (908.22) Chollas Creek	1901	25,080	1,991	1,991	92.1%

[Insert table number]. *Interim Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101	61,351	56,419	4,787	51.4%	227	0.0%	25	51,289
	103								
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104	791,298	726,379	61,701	51.4%	2,928	0.0%	316	661,526
	105								
	106								
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201	2,230,206	1,950,980	735,453	27.6%	11,374	0.0%	511	1,203,642
	202								
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301	501,525	462,306	219,518	15.2%	0	0.0%	50	242,738
	302								
	304								
	305								
	306								
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	12,980,098	12,152,446	1,384,643	27.3%	838,982	27.1%	2,941	9,925,881

[Insert table number]. *Interim Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	1,663,093	1,563,186	295,768	25.3%	166	0.0%	640	1,266,612
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502								
San Clemente City Beach at Linda Lane	503								
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504								
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.)	505								
San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	506								
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	18,439,920	17,470,687	1,301,910	11.7%	2,193	6,083,637	11.6%	10,082,948
San Marcos HA (904.50) at Moonlight State Beach	1101	40,558	32,966	23,768	20.3%	25	6,249	20.2%	2,924
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 / 1302	14,796,210	14,327,364	1,769,497	7.5%	4,095,315	7.4%	2,079	8,460,473
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	11,564	11,405	8,110	1.9%	0	0.0%	0	3,295

[Insert table number]. *Interim Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
Scripps HA (906.30) La Jolla Shores Beach at El Paseo Grande La Jolla Shores Beach at Caminito Del Oro La Jolla Shores Beach at Vallecitos La Jolla Shores Beach at Ave de la Playa at Casa Beach (aka Children's Pool) South Casa Beach at Coast Blvd. Whispering Sands Beach at Ravina St. Windansea Beach at Vista de la Playa Windansea Beach at Bonair St. Windansea Beach at Playa del Norte Windansea Beach at Palomar Ave. at Tourmaline Surf Park Pacific Beach at Grand Ave.	1501 1503 1505 1507	377,839	324,033	232,029	18.8%	0	0.0%	0	92,004
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	7,255,759	6,591,843	891,519	42.8%	213,319	0.0%	2,376	5,484,628
Santee HSA (907.12) Forrester Creek	1801	7,255,759	6,591,843	891,519	42.8%	213,319	0.0%	2,376	5,484,628
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	7,255,759	6,591,843	891,519	42.8%	213,319	0.0%	2,376	5,484,628
Chollas HSA (908.22) Chollas Creek	1901	1,371,972	1,152,645	802,947	21.6%	0	0.0%	2,040	347,658

[Insert table number]. *Final Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) 　Cameo Cove at Irvine Cove Dr. - Riviera Way 　at Heisler Park – North	101	61,351	291	0	100%	0	100%	0	51,289
	103								
Laguna Beach HSA (901.12) 　at Main Laguna Beach 　Laguna Beach at Ocean Avenue 　Laguna Beach at Laguna Ave. 　Laguna Beach at Cleo Street 　Arch Cove at Bluebird Canyon Rd. 　Laguna Beach at Dumond Drive	104	791,298	3,884	0	100%	0	100%	0	661,526
	105								
	106								
Aliso HSA (901.13) 　Laguna Beach at Lagunita Place / Blue Lagoon Place 　at Aliso Beach 　Aliso Creek	201	2,230,206	13,704	0	100%	0	100%	0	1,203,642
	202								
Dana Point HSA (901.14) 　Aliso Beach at West Street 　Aliso Beach at Table Rock Drive 　1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) 　at Salt Creek (large outlet) 　Salt Creek Beach at Salt Creek service road 　Salt Creek Beach at Dana Strand Road	301	501,525	3,875	0	100%	0	100%	0	242,738
	302								
	304								
	305								
	306								
Lower San Juan HSA (901.27) 　San Juan Creek 　at San Juan Creek mouth 　at San Juan Creek beach	401	12,980,098	56,119	0	100%	0	100%	0	9,925,881

[Insert table number]. *Final Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St. San Clemente City Beach at Linda Lane San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach San Clemente State Beach at Cypress Shores	501 502 503 504 505 506	1,663,093	9,492	0	100%	0	100%	0	1,266,612
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	18,439,920	174,221	0	100%	0	100%	0	10,082,948
San Marcos HA (904.50) at Moonlight State Beach	1101	40,558	406	0	100%	0	100%	0	2,924
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 1302	14,796,210	135,530	0	100%	0	100%	0	8,460,473
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	11,564	81	0	100%	0	100%	0	3,295

[Insert table number]. *Final Wet Weather TMDLs for Enterococci Expressed as an Annual Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	Percent Reduction (Agriculture / Livestock)	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
Scripps HA (906.30) La Jolla Shores Beach at El Paseo Grande La Jolla Shores Beach at Caminito Del Oro La Jolla Shores Beach at Vallecitos La Jolla Shores Beach at Ave de la Playa at Casa Beach, Children's Pool South Casa Beach at Coast Blvd. Whispering Sands Beach at Ravina St. Windansea Beach at Vista de la Playa Windansea Beach at Bonair St. Windansea Beach at Playa del Norte Windansea Beach at Palomar Ave. at Tourmaline Surf Park Pacific Beach at Grand Ave.	1501 1503 1505 1507	377,839	2,686	0	100%	0	100%	0	92,004
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	7,255,759	48,356	0	100%	0	100%	0	5,484,628
Santee HSA (907.12) Forrester Creek	1801	7,255,759	48,356	0	100%	0	100%	0	5,484,628
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	7,255,759	48,356	0	100%	0	100%	0	5,484,628
Chollas HSA (908.22) Chollas Creek	1901	1,371,972	9,073	0	100%	0	100%	0	347,658

[Insert table number]. *Interim/Final Dry Weather TMDLs for Enterococci Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12) Cameo Cove at Irvine Cove Dr. - Riviera Way at Heisler Park – North	101 103	433	3	3	99.4%
Laguna Beach HSA (901.12) at Main Laguna Beach Laguna Beach at Ocean Avenue Laguna Beach at Laguna Ave. Laguna Beach at Cleo Street Arch Cove at Bluebird Canyon Rd. Laguna Beach at Dumond Drive	104 105 106	1,888	37	37	98.0%
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201 202	4,614	40	40	99.1%
Dana Point HSA (901.14) Aliso Beach at West Street Aliso Beach at Table Rock Drive 1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave) at Salt Creek (large outlet) Salt Creek Beach at Salt Creek service road Salt Creek Beach at Dana Strand Road	301 302 304 305 306	1,567	16	16	99.0%
Lower San Juan HSA (901.27) San Juan Creek at San Juan Creek mouth at San Juan Creek beach	401	5,433	275	275	94.9%

[Insert table number]. Interim/Final Dry Weather TMDLs for Enterococci Expressed as a Monthly Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
San Clemente HA (901.30) at Poche Beach (large outlet) Ole Hanson Beach Club Beach at Pico Drain	501	2,817	33	33	98.8%
San Clemente City Beach at El Portal St. Stairs San Clemente City Beach at Mariposa St.	502				
San Clemente City Beach at Linda Lane	503				
San Clemente City Beach at South Linda Lane San Clemente City Beach at Lifeguard Headquarters Under San Clemente Municipal Pier	504				
San Clemente City Beach at Trafalgar Canyon (Trafalgar Ln.) San Clemente State Beach at Riviera Beach	505				
San Clemente State Beach at Cypress Shores	506				
San Luis Rey HU (903.00) at San Luis Rey River Mouth	701	1,466	185	185	87.4%
San Marcos HA (904.50) at Moonlight State Beach	1101	126	5	5	96.4%
San Dieguito HU (905.00) at San Dieguito Lagoon Mouth	1301 1302	1,368	226	226	83.4%
Miramar Reservoir HA (906.10) Torrey Pines State Beach at Del Mar (Anderson Canyon)	1401	173	1	1	99.3%

[Insert table number]. *Interim/Final Dry Weather TMDLs for Enterococci Expressed as a Monthly Load*

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation[B] (Municipal MS4s)	Percent Reduction
		Billion MPN/month			
Scripps HA (906.30) La Jolla Shores Beach at El Paseo Grande La Jolla Shores Beach at Caminito Del Oro La Jolla Shores Beach at Vallecitos La Jolla Shores Beach at Ave de la Playa at Casa Beach (aka Children's Pool) South Casa Beach at Coast Blvd. Whispering Sands Beach at Ravina St. Windansea Beach at Vista de la Playa Windansea Beach at Bonair St. Windansea Beach at Playa del Norte Windansea Beach at Palomar Ave. at Tourmaline Surf Park Pacific Beach at Grand Ave.	1501 1503 1505 1507	2,811	21	21	99.3%
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	4,106	248	248	93.9%
Santee HSA (907.12) Forrester Creek	1801	4,106	248	248	93.9%
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	4,106	248	248	93.9%
Chollas HSA (908.22) Chollas Creek	1901	4,283	66	66	98.5%

Table 9-11. Alternative Interim Wet Weather TMDLs for Enterococci Expressed as an Annual Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	*Percent Reduction (Agriculture / Livestock)*	Wasteload Allocation[B] (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201 202	2,230,206	1,952,516	736,989	27.4%	11,374	0.0%	511	1,203,642
Lower San Juan HSA (901.27) San Juan Creek	401	12,980,098	12,159,138	1,391,334	26.9%	847,520	26.4%	2,941	9,925,881
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	7,255,759	6,596,073	895,750	42.5%	213,319	0.0%	2,376	5,484,628
Santee HSA (907.12) Forrester Creek	1801	7,255,759	6,596,073	895,750	42.5%	213,319	0.0%	2,376	5,484,628
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	7,255,759	6,596,073	895,750	42.5%	213,319	0.0%	2,376	5,484,628
Chollas HSA (908.22) Chollas Creek	1901	1,371,972	1,153,598	803,900	21.5%	0	0.0%	2,040	347,658

[A] This number is used in the LSPC model to identify the subwatershed associated with the listed segment(s) within a hydrologic region (see Appendix E). Load-duration curves and TMDL calculation tables for each subwatershed are provided in Appendix O.

[B] No reductions for Caltrans and Open Space categories because allocations are equal to existing loads.

Table 9-12. Alternative Final Wet Weather TMDLs for Enterococci Expressed as an Annual Load

Hydrologic Descriptor	Model Subwatershed[A]	Existing Load	Total Maximum Daily Load	Wasteload Allocation (Municipal MS4s)	Percent Reduction (Municipal MS4s)	Load Allocation (Agriculture / Livestock)	*Percent Reduction (Agriculture / Livestock)*	Wasteload Allocation (Caltrans)	Load Allocation[B] (Open Space)
		Billion MPN/year				Billion MPN/year		Billion MPN/year	
Aliso HSA (901.13) Laguna Beach at Lagunita Place / Blue Lagoon Place at Aliso Beach Aliso Creek	201 / 202	2,230,206	22,536	0	100%	0	100%	0	1,203,642
Lower San Juan HSA (901.27) San Juan Creek	401	12,980,098	95,357	0	100%	0	100%	0	9,925,881
San Diego HU (907.11) at San Diego River Mouth (aka Dog Beach)	1801	7,255,759	81,764	0	100%	0	100%	0	5,484,628
Santee HSA (907.12) Forrester Creek	1801	7,255,759	81,764	0	100%	0	100%	0	5,484,628
San Diego HU (907.11) & Santee HSA (907.12) San Diego River, Lower	1801	7,255,759	81,764	0	100%	0	100%	0	5,484,628
Chollas HSA (908.22) Chollas Creek	1901	1,371,972	15,008	0	100%	0	100%	0	347,658

[A] This number is used in the LSPC model to identify the subwatershed associated with the listed segment(s) within a hydrologic region (see Appendix E). Load-duration curves and TMDL calculation tables for each subwatershed are provided in Appendix P.

[B] No bacteria load reductions are required from Open Space because allocations are equal to existing loads.

TMDL Implementation Plan

NPDES requirements for discharges to the beach segments and creeks where water quality has been listed as "impaired" will be reviewed and, if necessary, revised to incorporate provisions consistent with implementation of the TMDLs, *e.g.*, water quality based effluent limits or receiving water limits that reflect waste load allocations for particular sources of bacteria. Existing provisions of current NPDES requirements must be interpreted and enforced in a manner that is consistent with the TMDLs in order to promote attainment of applicable water quality objectives. Additionally, Basin Plan provisions must be implemented in WDRs pursuant to California Water Code section 13263. Among the NPDES requirements that will be affected are the following:

- SWRCB Order No. 99-06-DWQ (NPDES No. CAS000003), statewide general NPDES waste discharge requirements for storm water discharges associated with activities of the California Department of Transportation (CalTrans), or any amendment or renewal thereof; Receiving Water Limitation C-1-3.a of Order No. 99-06 already requires CalTrans to implement BMPs to reduce pollutant discharges, including discharges of bacteria, to the maximum extent practicable;

- San Diego Water Board Order Nos. 2007-0001 and 2002-0001 (NPDES Nos. CAS0108758 and CAS0108740), NPDES requirements for discharges of storm water from large municipal separate storm sewer systems (MS4s) in San Diego County and Orange County , and any amendment or renewal thereof; Receiving Water Limitation A.3.a.1 of Order No. 2007-0001 and C.2 of Order No. 2002-0001 already requires copermittees to implement BMPs to reduce pollutant discharges, including discharges of bacteria, to the maximum extent practicable;

- SWRCB Order No. 2003-0005-DWQ (NPDES No. CAS000004), statewide general NPDES waste discharge requirements for small MS4s, and any amendment or renewal thereof;

- Any NPDES waste discharge requirements for individual discharges from publicly owned treatment works or CAFOs located in watersheds discharging to impaired beach segments and creeks.

In addition to the issuance and enforcement of NPDES requirements for discharges of pollutants from point sources to navigable waters of the United States, the following actions may be taken to implement TMDLs:

- The San Diego Water Board may issue and enforce waste discharge requirements, or waiver conditions, for discharges of waste that could affect the quality of the waters of the state at the designated beach segments and creeks even though the discharges are not subject to the NPDES requirements (*e.g.*, non-point source discharges of waste); such requirements or conditions must, nonetheless, implement provisions of the Basin Plan, including TMDLs, by including waste discharge requirements or conditions that will prevent pollution or nuisance (*i.e.*, violation of water quality objectives); discharges of waste from livestock operations, manure composting and

soil amendment operations, and agricultural irrigation return flow may be subject to
waste load allocations or load allocations that implement TMDLs.

- The San Diego Water Board may work with local governments to "obtain coordinated
  action in water quality control, including the prevention and abatement of water
  pollution and nuisance" (California Water Code section 13225). Local governments
  can adopt and enforce ordinances that will implement TMDLs, including provisions
  that will promote necessary bacteria load reductions assigned to nonpoint sources
  within their respective jurisdictions when local governments undertake or approve
  projects that could have significant impacts on water quality due to discharges of
  bacteria.

- The San Diego Water Board may take enforcement actions,[5] as necessary and
  appropriate, against any discharger failing to comply with applicable discharge
  prohibitions, WDRs, or waiver conditions and may take enforcement action, as
  necessary and appropriate, to control discharges of wastes and pollutants to beach
  segments and creeks at which water quality has been listed as "impaired" to attain
  compliance with the LAs and WLAs established in association with TMDLs, or to
  attain compliance with applicable WQOs.

- The San Diego Water Board may rescind waivers of waste discharge requirements
  and issue WDRs or take other appropriate action against any discharger(s) failing to
  comply with the waiver conditions.

State government agencies are required to comply with the Basin Plan in carrying out
activities that may affect water quality within the San Diego Region (California Water
Code section 13247). Agencies such as the Department of Parks and Recreation, State
Lands Commission, and Coastal Commission, that might undertake or approve projects that
could affect the quality of waters of the state or that might involve discharges of wastes that
could affect the quality of waters of the state or that might involve discharges of pollutants
from point sources to navigable waters all have independent obligations under section
13247 of the California Water Code to comply with provisions of the Basin Plan and
implement applicable TMDLs through waste load reductions or load reductions.

Prioritization of Waterbodies

"Impaired" waters were prioritized based on factors such as level of beach (marine or
freshwater) swimmer usage, existence of shellfish harvesting (for beaches), frequency of

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[5] An enforcement action is any formal or informal action taken to address an incidence of actual or threatened
noncompliance with existing regulations or provisions designed to protect water quality. Potential enforcement
actions including notices of violation (NOVs), notices to comply (NTCs), imposition of time schedules (TSO),
issuance of cease and desist orders (CDOs) and cleanup and abatement orders (CAOs), administrative civil liability
(ACL), and referral to the attorney general (AG) or district attorney (DA). The San Diego Water Board generally
implements enforcement through an escalating series of actions to: (1) assist cooperative dischargers in achieving
compliance; (2) compel compliance for repeat violations and recalcitrant violators; and (3) provide a disincentive for
noncompliance.

exceedances of WQOs, and existing programs designed to reduce bacteria loading to
surface waters, because the waterbodies included in this TMDL are numerous and diverse
in terms of geographic location, swimmer accessibility and use, existence of shellfish
harvesting, and degree of contamination.

Priority 1 waters are those with the highest priority for pollutant reduction. Priority 1
waters include waterbodies likely to attain applicable WQOs for indicator bacteria and,
therefore, likely to be removed from the List of Water Quality Limited Segments, as well
as where water quality impairment is greatest, or where the pollution is most likely to
impair actual beneficial uses. Implementation of the TMDLs at waterbodies allocated to
Priority 2 or 3 may be deferred temporarily in order to focus the greatest effort in
waterbodies where the restoration of water quality is of greater importance because
dischargers accountable for attaining load reductions in multiple watersheds may have
difficulty providing the same level of effort simultaneously in all watersheds.
. A prioritized list of impaired beaches and creeks included in these TMDLs is shown in
Table [Insert table number]. Priority schemes are designated within watersheds.

[Insert table number]. Prioritized List of Impaired Waters for TMDL Implementation

Watershed	Waterbody	Segment or Area	Priority
San Joaquin Hills HSA (901.11) & Laguna Beach HSA (901.12)	Pacific Ocean Shoreline	Cameo Cove at Irvine Cove Dr. - Riviera Way	1
		at Heisler Park – North	1
Laguna Beach HSA (901.12)	Pacific Ocean Shoreline	at Main Laguna Beach	1
		Laguna Beach at Ocean Avenue	1
		Laguna Beach at Laguna Avenue	1
		Laguna Beach at Cleo Street	1
		Arch Cove at Bluebird Canyon Road	1
		Laguna Beach at Dumond Drive	1
Aliso HSA (901.13)	Pacific Ocean Shoreline	Laguna Beach at Lagunita Place/Blue Lagoon Place at Aliso Beach	1
	Aliso Creek At creek mouth		3
Dana Point HSA (901.14)	Pacific Ocean Shoreline	Aliso Beach at West Street	1
		Aliso Beach at Table Rock Drive	1
		1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Ave)	1
		at Salt Creek (large outlet)	1
		Salt Creek Beach at Salt Creek service road	2
		Salt Creek Beach at Dana Strand Road	2
Lower San Juan HSA (901.27)	Pacific Ocean Shoreline	at Creek mouth	1
	San Juan Creek		1
San Clemente HA (901.30)	Pacific Ocean Shoreline	at Poche Beach (large outlet)	1
		Ole Hanson Beach Club Beach at Pico Drain	1
		San Clemente City Beach at Linda Lane	1

Watershed	Waterbody	Segment or Area	Priority
		San Clemente State Beach at Riviera Beach	1
		San Clemente City Beach at Mariposa Street	2
		San Clemente State Beach at Cypress Shores	2
		San Clemente City Beach at Lifeguard Headquarters	2
		Under San Clemente Municipal Pier	2
		San Clemente City Beach at El Portal Street Stairs	2
		San Clemente City Beach at South Linda Lane	3
		San Clemente City Beach at Trafalgar Canyon (Trafalgar Lane)	3
San Luis Rey HU (903.00)	Pacific Ocean Shoreline	at San Luis Rey River Mouth	2
San Marcos HA (904.50)	Pacific Ocean Shoreline	at Moonlight State Beach	1
San Dieguito HU (905.00)	Pacific Ocean Shoreline	at San Dieguito Lagoon Mouth	1
Miramar Reservoir HA (906.10)	Pacific Ocean Shoreline[a]	Torrey Pines State Beach at Del Mar (Anderson Canyon)	1
Scripps HA (906.30)	Pacific Ocean Shoreline[a]	La Jolla Shores Beach at El Paseo Grande	1
		La Jolla Shores Beach at Caminito Del Oro	1
		La Jolla Shores Beach at Vallecitos	1
		La Jolla Shores Beach at Ave de la Playa	1
		at Casa Beach, Children's Pool	1
		South Casa Beach at Coast Blvd.	1
		Whispering Sands Beach at Ravina Street	1
		Windansea Beach at Vista de la Playa	1
		Windansea Beach at Bonair Street	1
		Windansea Beach at Playa del Norte	1
		Windansea Beach at Palomar Ave.	1
		at Tourmaline Surf Park	1
		Pacific Beach at Grand Ave.	1
Santee HSA (907.12)	Forrester Creek		3
Mission San Diego HSA (907.11) & Santee HSA (907.12)	San Diego River, Lower		3
Chollas HSA (908.22)	Chollas Creek	Bottom 1.2 miles	3

[a] The State Board has proposed removing these beach segments from the 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments

Availability of Grants and Loans

The SWRCB administers several grant and loan funds that might be available, upon request, for water quality control, pollution abatement, or pollution prevention, including projects that could promote attainment of LAs and WLAs needed to comply with TMDLs.

Compliance Schedule

Full implementation of the TMDLs for indicator bacteria shall be completed within 10-20 years from [*insert date on which OAL approves this Basin Plan amendment*]. The compliance schedule for implementing the load and wasteload reductions required under these TMDLs is structured in a phased manner, with 100 percent of interim reductions necessary for protection of the REC-1 beneficial use required 10 years from *[insert date on which OAL approves this Basin Plan amendment].* Final wet weather reductions to attain REC-1 and final reductions to attain SHELL WQOs are required after 20 years, as discussed above. Interim reductions to attain REC-1 are required after 10 years. Interim reductions required by the compliance schedule vary on the timeline based on the priority scheme described above. Interim reductions in bacteria loads and wasteloads are required sooner in the higher priority waters.

[Insert table number]. Compliance Schedule and Interim Goals for Achieving Wasteload Reductions

Compliance Year (year after OAL approval)	Required Wasteload Reduction		
	Priority 1	Priority 2	Priority 3
1			
2			
3			
4			
5	50% (All Interim and Final Dry ENT and FC)		
6		50% (All Interim and Final Dry ENT and FC)	
7			50% (All Interim and Final Dry ENT and FC)
8			
9			
10	100% (All Interim and Final Dry ENT and FC)	100% (All Interim and Final Dry ENT and FC)	100% (All Interim and Final Dry ENT and FC)
11			
20	100% (Final Dry TC and All Wet)	100% (Final Dry TC and All Wet)	100% (Final Dry TC and All Wet)

Because dischargers in the Chollas Creek watershed will be addressing required load reductions from multiple water quality improvement projects in addition to bacteria, namely TMDLs for copper, lead, zinc, and diazinon, and a trash reduction program, the compliance schedule is 20 years to achieve the necessary load reductions for all pollutants in this watershed. Regarding bacteria, these interim milestones described in Table [*Insert table number*] apply.

[Insert table number] Compliance Schedule Including Interim Milestones—Chollas Creek

Compliance Year (year after OAL approval)	Wasteload Reduction Milestone
7	50% interim for dry weather
10	100% interim REC-1 for dry weather, 50% interim REC-1 for wet weather
20	100% for final wet and dry weather

 * Dischargers have an additional 5 years to meet dry weather Wasteload reductions for SHELL
if surveys show that shellfishing is not occurring.